Notice of Allowability	Application No. 09/633,155	Applicant(s) PECINA ET AL.	
	Examiner George C. Neurauter, Jr.	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *RCE filed 12 April 2006*.

2. ☒ The allowed claim(s) is/are *1-14,18 and 19*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Christopher Bernard on 19 June 2006.

The application has been amended as follows:

A complete listing of the claims as amended in view of the currently presented claims filed 12 May 2006is as follows:

1. A method of operating a network device, wherein the network device comprises a first printed circuit board including a first processor component and a second printed circuit board including a second processor component, and wherein said first and said second printed circuit boards are coupled to an internal communications bus configured to enable communication between said first and said second printed circuit boards, said method comprising:

providing a first configuration database containing data for configuring and operating the network device;

operating the network device with the first configuration database as a primary configuration database;

providing a second configuration database containing backup data corresponding to the data contained in the first configuration database;

operating the network device with the second configuration database as a backup configuration database;

replicating modifications made to the first configuration database to the second configuration database;

detecting a configuration database upgrade operation;

stopping replication of data from the first configuration database to the second configuration database;

upgrading the second configuration database while said first configuration database continues to provide configuration data to said network device;

maintaining the first configuration database through the first processor component; and

operating the network device with the first printed circuit board as a primary printed circuit board and the first processor component as a primary processor component;

maintaining the second configuration database through the second processor component;

operating the network device with the second printed circuit board as a backup printed circuit board and the second processor component as a backup processor component;

switching over to use the second configuration database as the primary configuration database; and

switching over to use the second printed circuit board and second processor component as the primary printed circuit board and the primary processor component.

2. The method of claim 1, further comprising:

detecting a commitment of the configuration database upgrade operation;

operating the network device with the first configuration database as a backup configuration database; and

replicating modifications made to the second configuration database to the first configuration database.

3. The method of claim 1, further comprising: detecting errors with the configuration database upgrade operation.

4. The method of claim 1, wherein upgrading the second configuration database comprises:

receiving a configuration control file from a network management server; and

executing the configuration control file.

5. The method of claim 4, wherein upgrading the second configuration database further comprises:

receiving a data definition language (DDL) file including structured query language (SQL) commands; and

wherein executing the configuration control file comprises executing the SQL commands to construct an upgraded database schema in the second configuration database.

6. The method of claim 1, wherein detecting a configuration database upgrade operation comprises:

receiving an upgrade definition from a network management system server.

7. The method of claim 6, wherein receiving an upgrade notification from a network management system server comprises:

receiving SQL commands from the network management server; and

executing the SQL commands.

8. The method of claim 7, wherein executing the SQL commands comprises:

writing a software load record indicating a configuration database upgrade in a table within the first configuration database.

9. The method of claim 8, wherein the table comprises a software management system table.

10. The method of claim 7, wherein the SQL commands are received within a DDL file.

11. The method of claim 8, wherein detecting a configuration database upgrade operation further comprises:

detecting the software load record indicating the configuration database upgrade through a master system resiliency manager (SRM); and

notifying a first slave SRM associated with the record configuration database to perform a configuration database upgrade.

12. The method of claim 11, wherein stopping replication of data from the first configuration database to the second configuration database comprises:

causing the second configuration database to cause replicating data changes made to the first configuration database.

13. The method of claim 1, wherein before detecting a configuration database upgrade operation the method further comprises:

receiving upgraded applications from a network management server.

14. The method of claim 1, wherein before detecting a configuration database upgrade operation the method further comprises:

receiving new applications from a network management server.

15-17. (Canceled)

18. The method of claim 2, wherein detecting commitment of configuration database upgrade comprises:

saving the upgraded second configuration database to persistent memory.

19. A method of managing a telecommunications network, comprising:

operating a network device with a first printed circuit board having a first processor component, and a first configuration database as a primary configuration database, said first configuration database containing data for configuring and operating the network device;

maintaining the first configuration database through the first processor component;

operating the network device with a second printed circuit board having a second processor component, and a second configuration database as a backup configuration database,

said second configuration database containing backup data corresponding to the data contained in the first configuration database and wherein said first and said second processor components communicate via an internal communications bus;

maintaining the second configuration database through the second processor component;

replicating modifications made to the first configuration database to the second configuration database;

sending SQL commands from a network management server to the network device;

executing the SQL commands to write a software load record indicating a configuration database upgrade in a table within the first configuration database;

~~replicating the changes to the first configuration database to the second configuration database;~~

stopping replication of data from the first configuration database to the second configuration database;

upgrading the second configuration database while the first configuration database continues to provide configuration data to applications executing on the network device;

switching over to use the second configuration database as the primary configuration database; and

switching over to use the second printed circuit board and second processor component as the primary printed circuit board and the primary processor component.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 April 2006 has been entered.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: Claims 1-14 and 18-19 are allowed in view of the Applicant's arguments and the cited prior art of record. The independent claims recite replicating modifications made to a first configuration database operating as a primary database which provides data for configuring and operating a network device in a second configuration database wherein the replication is stopped upon a configuration database upgrade operation detection, upgrading the second configuration database while the first configuration database continues to provide configuration data to the network device, and switching the second configuration database to become a primary configuration database which, in addition to the rest of the claim limitations, are distinguished from the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gcn

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